



## SQUARE TOWER



**Assemble the ladders.** This project begins with building two ladders: a climbing ladder and a supporting ladder. Lay out two pairs of spars on the ground for the legs of the ladders. Be sure the butt ends are even at the bottom so that the tower will stand up straight. Before you begin any lashing, mark the positions where the spars that will hold the top platform are to be lashed onto the legs. This is about 4 feet from the top ends of the legs.

To make the climbing ladder, lash ten rungs on one pair of legs at about 1-foot intervals. The top rung should be lashed on where you marked the position of the platform, 4 feet from the top. Also the top handrail is lashed on to complete the climbing ladder.

To make the supporting ladder, lash three spars on the other set of legs to serve as the bottom, center, and top spreaders. The top spreader should be lashed at the point you marked for the platform, 4 feet from the top. Then lash on the top handrail, as on the climbing ladder.

Lash the ladders together. Now you have to join the two ladders to form the tower. Turn the two ladders up on their sides so they're parallel to each other and approximately 6 feet apart. Check to see that the bottoms are even. Now lash on the base spreader to join the bottoms of the two ladders.

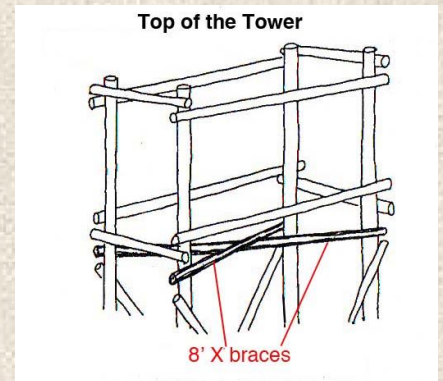
Lash on the platform supporting spar just above the top rung and top spreader on the ladders. Before proceeding, check the measurements from the bottoms of the legs to the platform supporting spar to make sure they're equal on both legs so that the platform will be level.

Continue by lashing on the top long handrail. The lash on the two side X-braces diagonally between the legs using square lashings to lash the ends to the legs, and a diagonal lashing where they cross.



Lash the other side. To make the lashings on the other side, you have to get the whole crew together to roll the tower over 180° so that it's laying on the X braces and the other sides of the ladders are up where they will be easier to get to.

Then proceed as before. Lash on the base spreader spar and the platform supporting spar. Again, measure to make sure there's equal distance from both ends of the platform support spar to the bottoms of both legs. Continue to lash on the top long handrail and finish with the X-braces.



Lash on two more platform X-braces under the platform. These braces go diagonally across the legs just under the platform to help the tower resist racking (see figure 137). Use square lashings to lash them to the legs and a diagonal lashing where they cross.

Before standing the tower upright, lash on the spars to form the platform floor.

**Anchors and Guylines.** When all the lashings are done, move the tower to where it will be hoisted. Before actually hoisting the tower, lay out the position of the four legs on the ground. Then determine where the four anchors for the guylines will be placed to steady the legs of the tower. Attach the four guylines to the legs just above the platform.